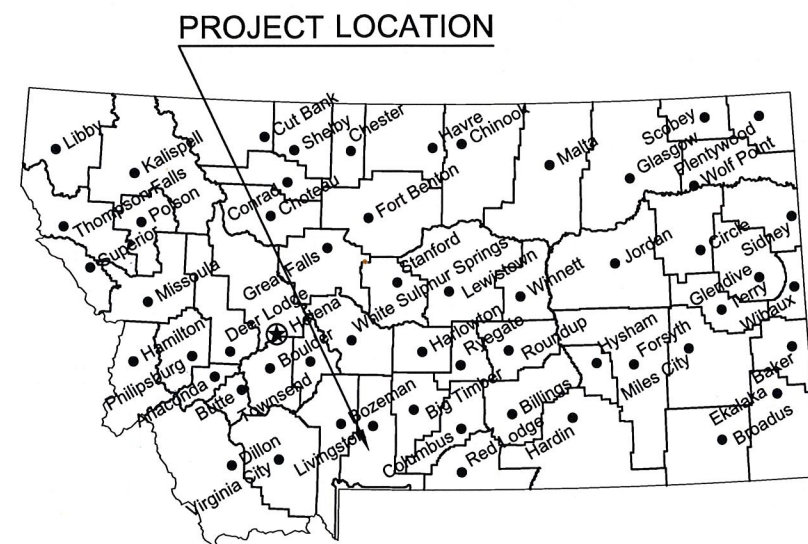


IMPROVEMENTS 2015 PARADISE FISHING ACCESS SITE

PRAY, MT

FWP # 7133713



Location Map

No Scale



Vicinity Map

No Scale



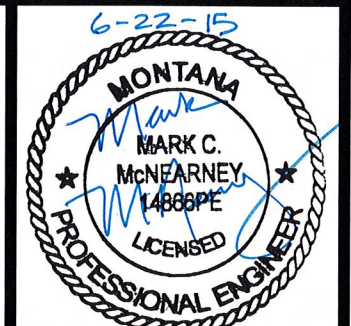
MONTANA FISH, WILDLIFE AND PARKS
DESIGN AND CONSTRUCTION BUREAU

MAILING ADDRESS:
PO BOX 200701
HELENA, MT 59620-0701
TEL 406.841.4000
FAX 406.841.4004
fwp.mt.gov/Doing Business/Design&Construction

PHYSICAL ADDRESS:
1522 9th AVENUE
HELENA, MT 59601

DRAWING INDEX

SHEET 1 : COVER
SHEET 2 : OVERALL SITE PLAN
SHEET 3 : SITE DETAIL
SHEET 4 : PROFILE
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SHEET 6 : TYPICAL ROAD AND PARKING SECTIONS
SHEET 7 : TYPICAL BARRIER ROCK, JACK LEG FENCE,
AND CATTLE GUARD DETAILS



J. Kevin McDonnell	2.2015				
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**Montana Fish,
Wildlife & Parks**

COVER
Paradise FAS near Pray, MT



SHEET: 1 of 7

Notes:

- 1) FWP Engineer will stake radius points, parking corners, centerline stations of alignments and provide reference elevations.
- 2) The Contractor shall use best management practices to prevent silt, soil and debris from entering the water. This may include straw, gravel or fabric. Temporary dikes to divert rainwater may be used, provided they are removed and the gravel or soil returned to the original condition. Exposed soil may require straw or similar cover to minimize erosion caused by rain. Other appropriate methods may be used at the Contractors' discretion or as directed by the owner.
- 3) Equipment used in or near water shall not leak fluids. It shall be power washed before use on the site and examined by the engineer.
- 4) The total excavation shall include all unclassified excavation, road blading and shaping and parking area grading.
- 5) All excess excavated material suitable as topsoil, shall be placed outside of graveled areas, leveled to match natural grades, and seeded. All areas disturbed during construction shall be seeded. Refer to Section 02936. Excavated materials not suitable for topsoil shall be used as fill.
- 6) Jack Leg Fence - Remove existing jack leg fence on south east property line and replace with new jack leg fence. All material removed from the site shall be disposed of in a safe and legal manner.
- 7) Barrier Rocks - Existing barrier rocks shall be moved as necessary to allow for parking area expansion. Removed barrier rocks will be placed along the edge of the new parking area as determined by FWP Engineer. Bidders are to include the cost of moving and placing the barrier rocks under the Excavation bid item. New barrier rocks shall be placed as indicated on site plan and designated by FWP Engineer.
- 8) Cattle Guards - The cattle guard and bearing timbers nearest the fishing access site shall be removed. The removed cattle guard and the cattle guard on the highway approach shall be placed adjacently to form a 24' wide cattle guard at the highway approach, centered on the existing roadway, and placed on new concrete bearing members. New metal wings shall be installed to connect the cattle gurd ends to the new single panel braces installed at the highway fence line. The contractor shall submit necessary information to the FWP Engineer regarding the concrete bearing members and the new metal wings. All material removed from the site shall be disposed of in a safe and legal manner.
- 9) Latrine Path - Place and compact a 4" depth of 1" (-) crushed top surfacing gravel on the area designated for latrine path. The total area is 200 square feet.
- 10) Transitions from new graveled areas to vegetated areas shall be uniform, well defined, and follow the alignment of the roads and parking layouts.
- 11) The contractor is responsible for locating and protecting utilities within the construction area including access routes to the construction area.
- 12) The contractor is required to notify and coordinate all work activities with the FWP Project Engineer. Public notification of site closure may be necessary, and requires a minimum notice of seven days.
- 13) Submittals are required on all products used in the project. refer to specifications for submittal requirements.
- 14) Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- 15) Provide all temporary signing, personnel and traffic control devises as required by federal, state and local regulations.
- 16) Geotechnical Information: The soils at the site are sandy loams stratified with coarse sand and gravel. the depth to a restrictive feature is over 80 inches.
- 17) The Owner is responsible for obtaining all necessary permits.



J. Kevin McDonnell

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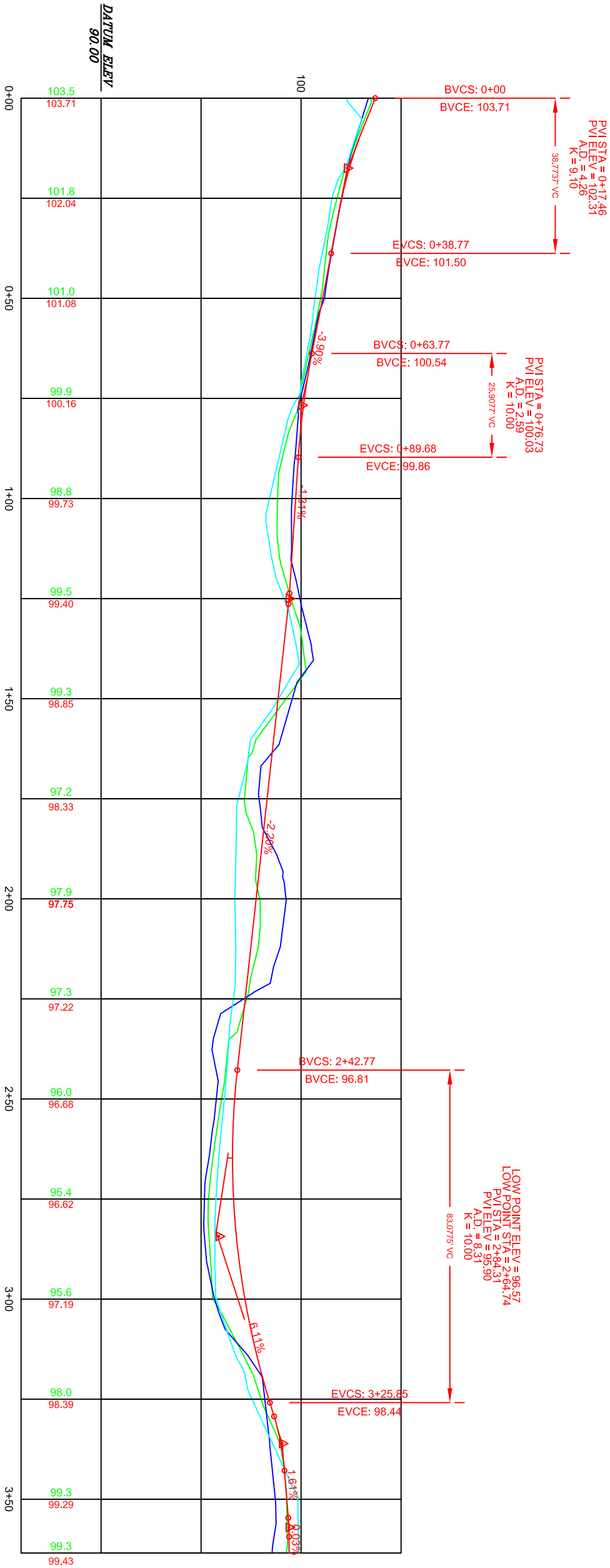
Paradise FAS near Pray, MT

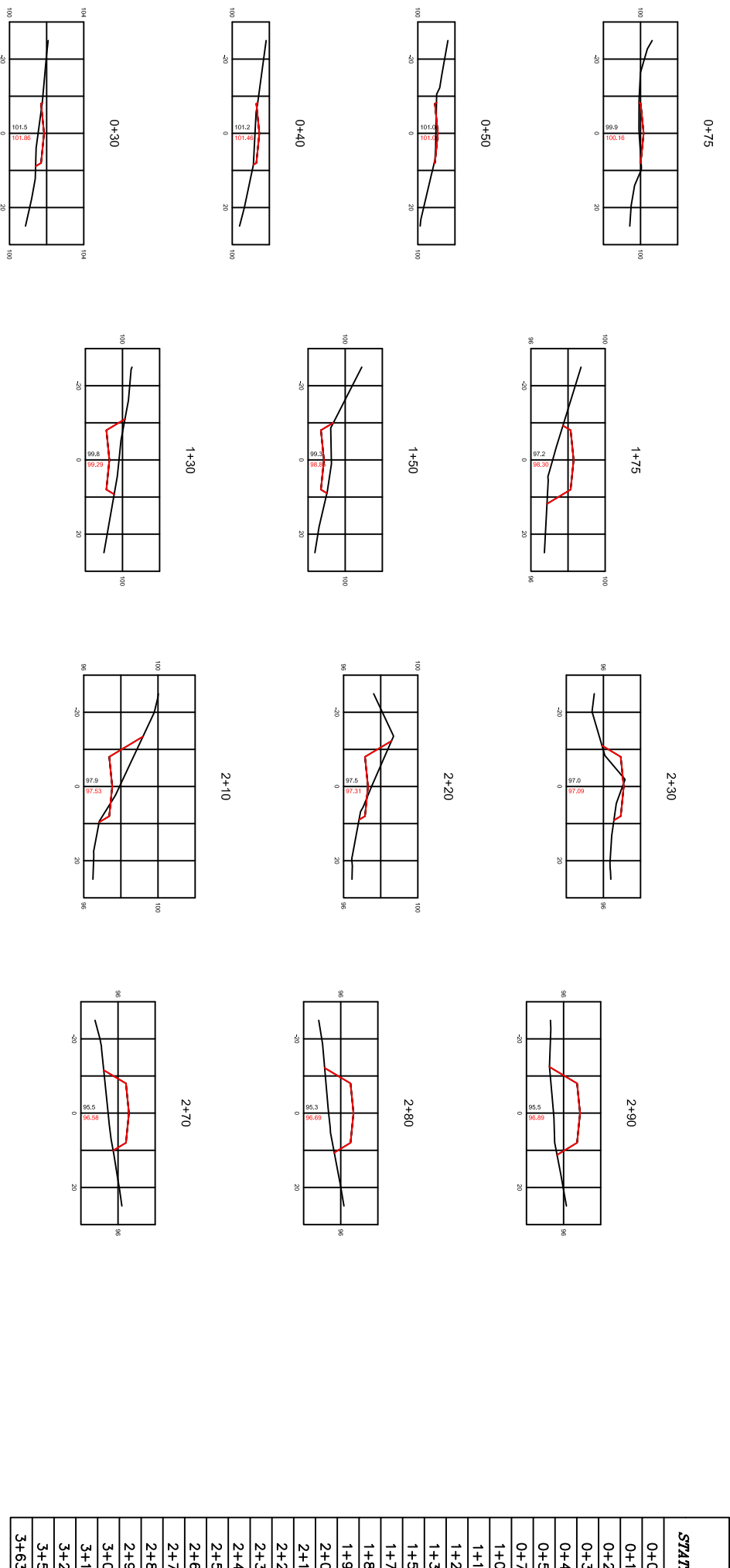
SHEET: 4 of 7



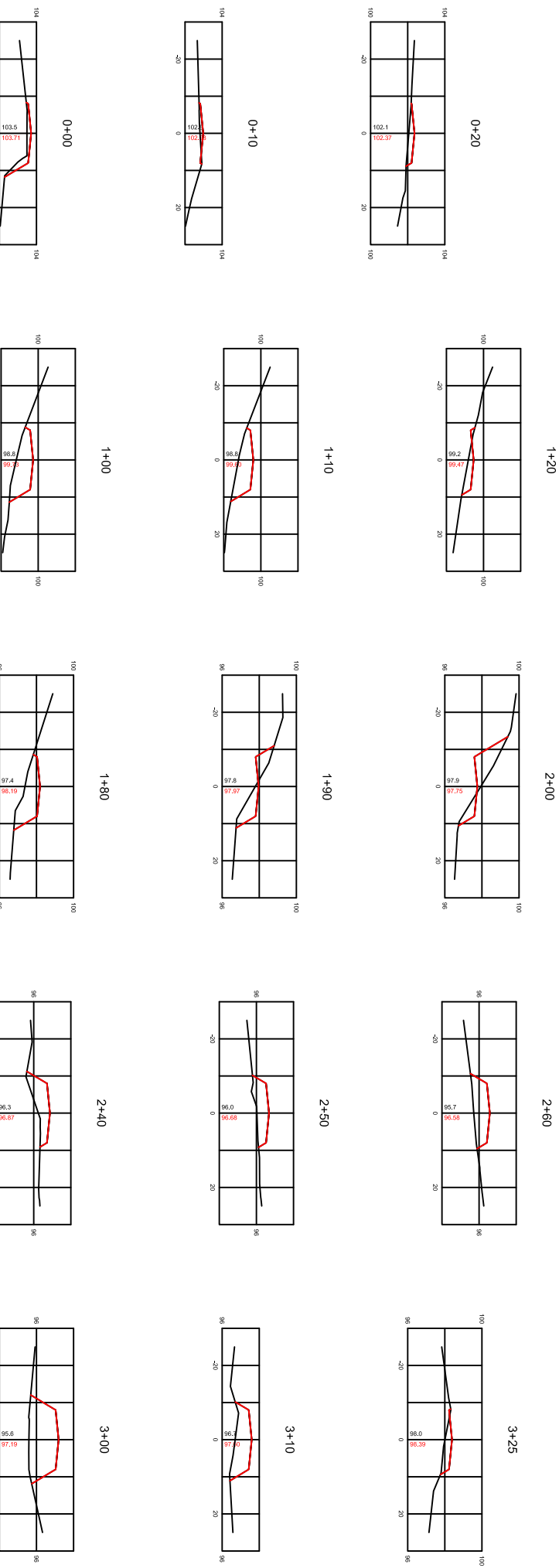
PROFILE LEGEND
— BASE COURSE GRADE - CENTERLINE
— EXISTING GRADE - CENTERLINE
— EXISTING GRADE - 6' LEFT OF CENTERLINE
— EXISTING GRADE - 6' RIGHT OF CENTERLINE

103.4	102.0	101.2	100.0	99.5	99.9	99.6	97.9	99.2	97.1	95.8	95.2	95.7	98.2	98.7	98.5
102.3	101.5	100.7	99.8	98.4	99.2	98.9	96.9	96.7	96.6	96.2	95.7	95.8	97.5	99.8	99.9





STATION	AREAS		VOLUMES		CUMULATIVE VOLUMES	
	Square Feet		Cubic Yards		Cubic Yards	
0+00	0.00	4.15	0.02	1.07	0.02	1.07
0+10	0.12	1.49	0.02	0.97	0.05	2.04
0+20	0.00	3.76	0.01	1.46	0.06	3.50
0+30	0.04	3.80	0.01	1.20	0.07	4.69
0+40	0.05	2.42	0.03	0.58	0.10	5.27
0+50	0.16	0.61	0.08	1.33	0.18	6.60
0+75	0.01	2.25	0.01	8.02	0.19	14.62
1+00	0.00	15.08	0.00	5.46	0.19	20.09
1+10	0.00	12.87	0.06	3.32	0.24	23.41
1+20	0.33	3.85	1.88	0.75	2.13	24.16
1+30	11.18	0.00	6.93	0.00	9.06	24.16
1+50	7.52	0.00	3.48	8.79	12.54	32.95
1+75	0.00	18.99	0.00	2.90	12.54	35.85
1+80	0.00	14.75	0.84	3.37	13.38	39.22
1+90	4.12	6.17	3.05	1.35	16.44	40.57
2+00	9.61	2.85	4.61	0.55	21.04	41.12
2+10	11.35	0.96	4.12	0.27	25.17	41.39
2+20	7.53	0.91	1.58	1.13	26.75	42.52
2+30	0.10	5.59	0.02	3.51	26.77	46.03
2+40	0.00	12.08	0.00	4.53	26.77	50.57
2+50	0.00	11.07	0.00	4.80	26.77	55.37
2+60	0.00	14.07	0.00	6.37	26.77	61.74
2+70	0.00	19.42	0.00	8.29	26.77	70.03
2+80	0.00	24.14	0.00	9.66	26.77	79.69
2+90	0.00	26.89	0.00	10.63	26.77	90.32
3+00	0.00	29.96	0.00	8.24	26.77	98.56
3+10	0.00	15.30	0.03	5.57	26.79	104.13
3+25	0.10	4.75	1.23	2.64	28.02	106.77
3+50	0.50	0.96	1.11	0.98	29.12	107.75
3+63.41	1.90	2.99	0.00	0.00	29.12	107.75



CROSS SECTION LEGEND			
	BASE COURSE SECTION		
	EXISTING SECTION		

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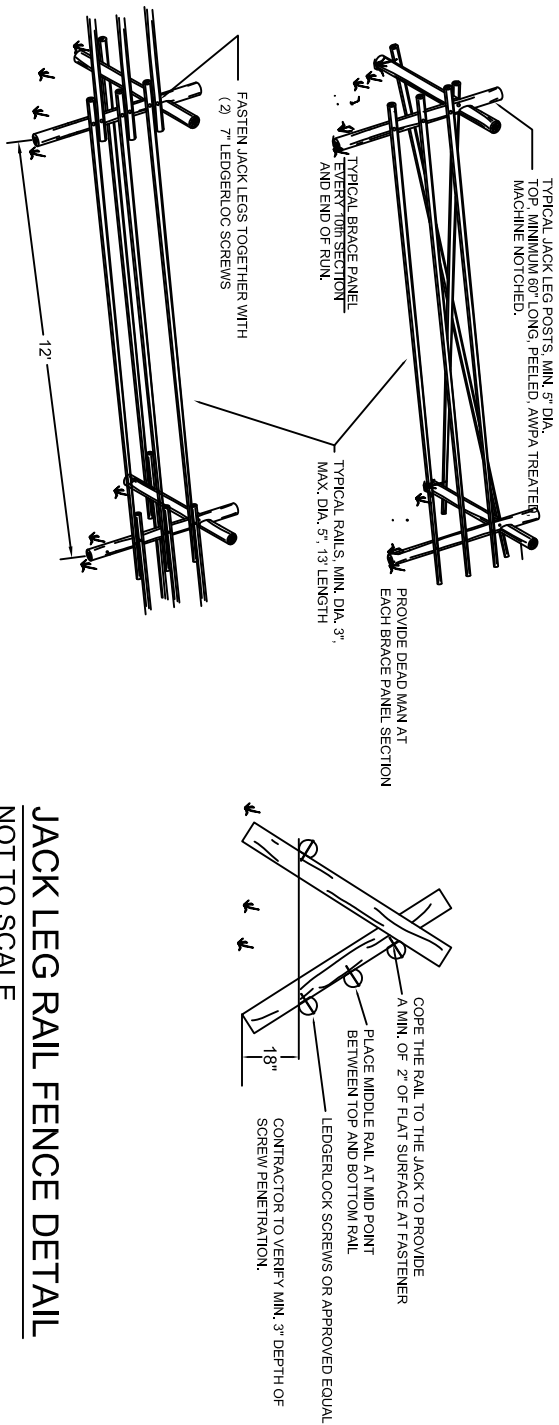


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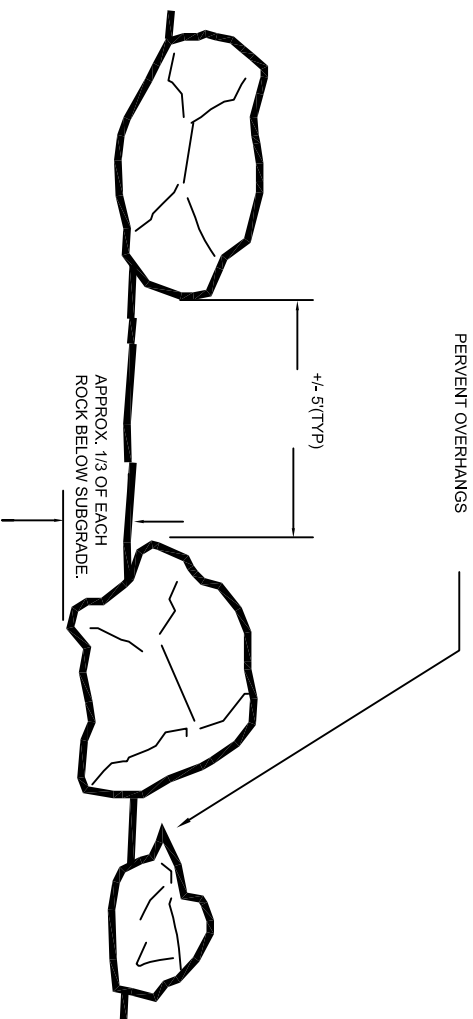
CROSS SECTIONS AND VOLUME TABLE

Paradise FAS near Pray, MT





JACK LEG RAIL FENCE DETAIL
NOT TO SCALE



BARRIER ROCK DETAIL
NOT TO SCALE

- ### **BARRIER ROCK NOTES:**
- 1) LANDSCAPE & BARRIER ROCK WILL BE PLACED AS SHOWN ON PLANS OR AS DESIGNATED BY FWP ENGINEER.
 - 2) MINIMUM SIZE SHALL BE 6 CF. NO DIMENSION SHALL BE LESS THAN 1/3 OF THE LONGEST DIMENSION.
 - 3) ROCK SHALL BE HARD, DURABLE WITH NO MAJOR MACHINE MARKS OR BLEMISHES, SUBMIT THE SOURCE INFORMATION TO THE FWP ENGINEER.
 - 4) DAYS PRIOR TO INSTALLATION.
 - 4) BARRIER ROCKS SHALL BE SET SO THAT THEIR LONG AXIS IS PARALLEL TO THE GROUND AND LONG SURFACING. THERE SHALL BE NO ACUTE ANGLES AT THE GROUND LINE.
 - 5) APPROXIMATELY 1/2 OF EACH ROCK SHALL BE PLACED BELOW GRADE.
 - 6) UNLESS OTHERWISE DIRECTED BARRIERS SHALL BE PLACED APPROXIMATELY 5' APART FROM EDGE TO EDGE.
 - 7) THE PROPER FINISHED GRADE WILL BE ESTABLISHED AROUND EACH ROCK.

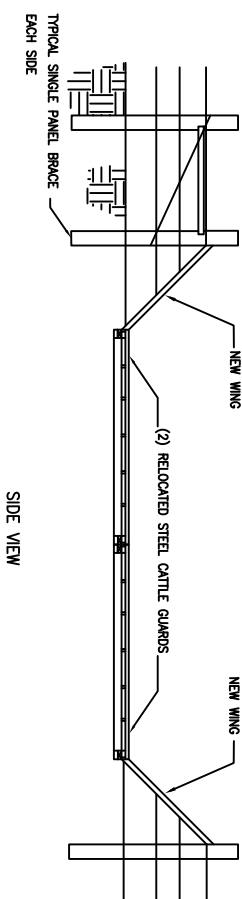
J. Kevin McDonnell		3.2.2015	
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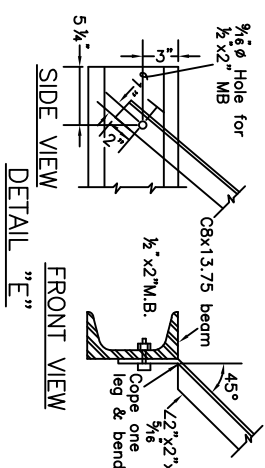
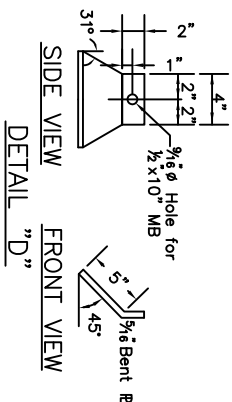
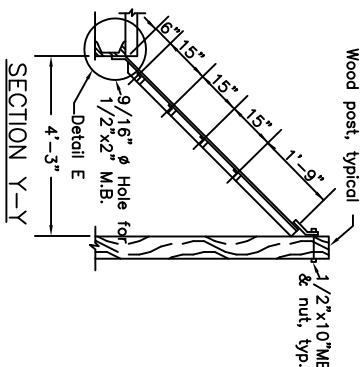
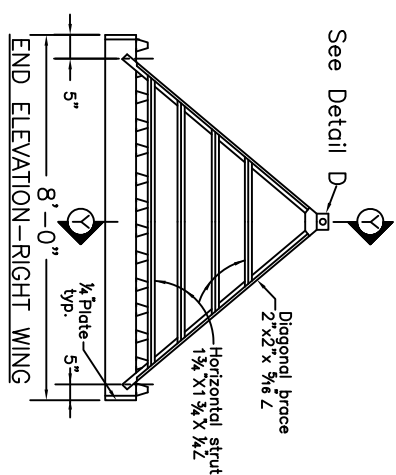
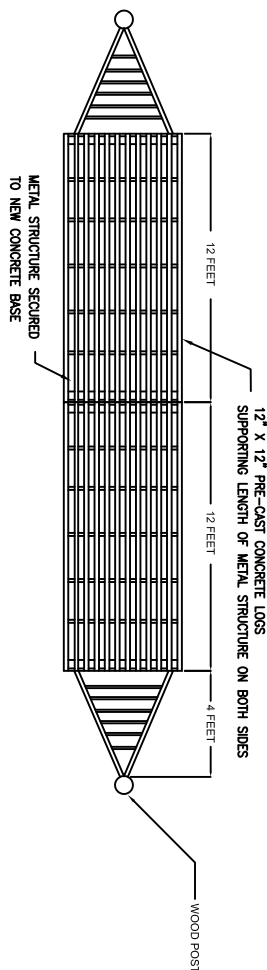
Montana Fish, Wildlife & Parks

TYPICAL CATTLE GUARD DETAIL

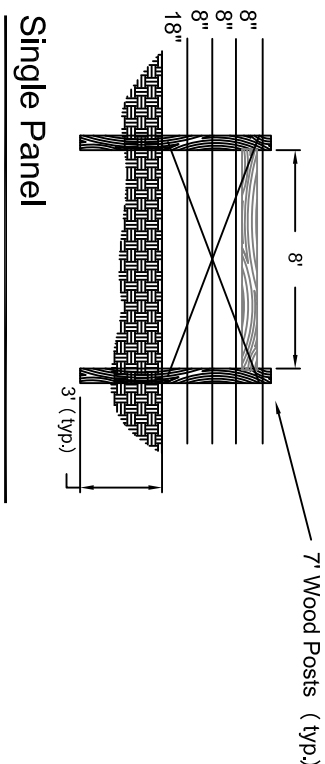
(NO SCALE)



NOTE: REMOVE EXISTING FENCE AS REQUIRED AND ATTACH NEW CATTLE GUARD WING TO NEW SINGLE PANEL BRACE AS SHOWN ATTACH EXISTING FENCE WIRE TO NEW BRACE. TYPICAL BOTH ENDS.



ANGLE-IRON END WING



Single Panel

DETAILS

Paradise FAS near Pray, MT



SHEET:
of